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09/786,835	06/19/2001	Gunter Feix	1588.GLE.PT	6541

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EXAMINER	
MEHTA, ASHWIN D	
ART UNIT	**PAPER NUMBER**
1638	16

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application N .	Applicant(s)	
	09/786,835	FEIX ET AL.	
	Examiner	Art Unit	
	Ashwin Mehta	1638	

-- The MAILING DATE of this communication appears on the cover sheet with the corresp ndence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 July 2002* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *30-68* is/are pending in the application.

4a) Of the above claim(s) *33 and 68* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *30-32, 34-67* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *19 June 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *11* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Election/Restrictions

1. Applicants' election without traverse of Group I, claims 30-67 and SEQ ID NO: 1 in Paper No. 15 is acknowledged. During the course of examination, the Examiner determined that it would not be an undue burden to further examine SEQ ID NOs: 2-7. Non-elected claim 68 is withdrawn from consideration. Claim 33 does not encompass any of SEQ ID NOs: 1-7, and is therefore a non-elected claim and is also withdrawn from consideration. Further, Applicants should amend claims 32, 34, 35, 47, and 59-63 so that they no longer encompass non-elected SEQ ID NOs: 8-15.

Claim Objections

2. Claims 39 and 49 are objected to because of the following informalities: The term "an" in line 2 should be --a--.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 30-32 and 34 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The claims are broadly drawn towards nucleic acid sequences for use in cloning and expressing a root specific nucleic acid sequence in a plant, selected from the group consisting of:

SEQ ID NOs: 1-7; a complement of one of SEQ ID NOs: 1-7; any nucleic acid sequence that has more than 70% identity to one of SEQ ID NOs: 1-7 or one of their complements; any allele of one of SEQ ID NOs: 1-7 or their complements; alleles of any nucleic acid sequence having more than 70% identity to one of SEQ ID NOs: 1-7; or alleles of any nucleic acid sequence having more than 70% identity to any complementary sequence of one of SEQ ID NOs: 1-7; or wherein the nucleic acid sequence is from maize.

The claims read on a nucleic acid sequence per se which is found in nature and thus, is unpatentable to applicant. The nucleic acid sequence, as claimed, has the same characteristics as those found naturally in the genome or as cellular precursors thereof and therefore does not constitute patentable subject matter. See American Wood v. Fiber Disintegrating Co., 90 U.S. 566 (1974), American Fruit Growers v. Brodgex Co., 283 U.S. 2 (1931), Funk Brothers Seed Co. v. Kalo Inoculant Co., 33 U.S. 127 (1948), Diamond v. Chakrabarty, 206 USPQ 193 (1980). It is suggested that applicant use the language "isolated" in connection with the nucleic acid sequence to identify a product that is not found in nature.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 30-32 and 34-67 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 30-32 and 34: the recitation "for use in cloning and expressing a root specific nucleic acid sequence" in lines 1-2 of the claims render them indefinite. The definition on page 13 of the specification indicates that "root specific nucleic acid sequence" refers to sequences that are exclusively or mainly active in roots or which direct or contribute to a root abundant or root selective expression of a protein. However, the claims indicate that the claimed nucleic acid sequence is to be used to express a root specific nucleic acid sequence. It is not clear if the claims intend for the nucleic acid sequence to be used to only express coding sequences that are naturally only expressed in roots.

Further in claims 30-32 and 34: the recitation in claim 30, "alleles of the complementary sequence" in line 6, and other recitations regarding alleles of complementary sequences in the claim, render it indefinite. It is not exactly clear what kind of sequence is being referred to. The definition on page 6 indicates that alleles are defined as sequence being essentially similar to the to the sequences of the invention but comprising changes and are functionally equivalent to the sequences of SEQ ID NOs: 1-15. However, the sequences of SEQ ID NOs: 1-7 are promoter sequences and must be base paired to their complementary sequences to direct transcription. It is therefore not clear what is encompassed by the recitations drawn only to alleles of complementary sequences, as promoters are double stranded.

Further in claims 30-32 and 34: the term "alleles" renders the claims indefinite. The definition on page 6 indicates that alleles are sequences that comprising, "for instance," nucleotide exchanges, substitutions, rearrangements, mutations, deletions, insertions, additions, or nucleotide modifications. The recitation "for instance" makes the definition unclear as to what else an allele can comprise.

In claims 38 and 48: the recitation "character of agronomic or industrial benefit" renders the claims indefinite. It is not exactly clear what is meant by the term "character." It is suggested that "character" be replaced with --trait--.

In claims 40 and 50: the recitation "which further includes regulatory elements directing or enhancing the expression of the gene of interest" renders the claims indefinite. SEQ ID NOs: 1-7 are promoter sequences. It is therefore not clear why claims 40 and 50 attempt to limit their parent claims, which encompass SEQ ID NOs: 1-7, requiring the presence of an element that directs gene expression. SEQ ID NOs: 1-7 already do this.

In claim 46: the recitation "in conjunction with" renders the claim indefinite. The recitation does not clearly describe the relationship between the nucleic acid sequence and the gene of interest. It is suggested that the recitation be replaced with --operably linked to--.

In claim 62: the recitation "or a plant having a host cell containing a vector comprising a nucleic acid" renders the claim indefinite. The claim does not clearly indicate whether or not the composition of matter comprises the host cell that contains the vector.

In claim 63: the claim recites the recitation "the vector" in the last line. There is insufficient antecedent basis for this limitation in the claim.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 30-32 and 34-67 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The claims are broadly drawn towards nucleic acid sequences for use in cloning and expressing a root specific nucleic acid sequence in a plant, selected from the group consisting of: SEQ ID NOs: 1-7; a complement of one of SEQ ID NOs: 1-7; any nucleic acid sequence that has more than 70% identity to one of SEQ ID NOs: 1-7 or one of their complements; any allele of one of SEQ ID NOs: 1-7 or their complements; alleles of any nucleic acid sequence having more than 70% identity to one of SEQ ID NOs: 1-7; or alleles of any nucleic acid sequence having more than 70% identity to any complementary sequence of one of SEQ ID NOs: 1-7; or wherein the nucleic acid sequence is from maize; a vector comprising said nucleic acid sequence; or any host cell comprising said vector; any cell culture comprising said host cell; any plant including said host cell; any composition of matter comprising said host cell; or a method of genetically modifying any cell, comprising a step of transforming the cell with said nucleic acid operably linked to a gene of interest that is expressible in said cell.

The specification indicates that genomic and cDNA clones for the maize zmGRP3 gene were isolated (pages 21-25). SEQ ID NO: 14 represents the 5' regulatory elements, coding region, and 3' regulatory elements, except for the most distal part of the 3' region which is set forth in SEQ ID NO: 15 (page 25, 1st full paragraph). The zmGRP3 coding sequence encodes a glycine-rich protein whose transcripts are expressed exclusively in young maize seedling roots (page 25, last paragraph). The sequence that makes up the zmGRP3 promoter is set forth in SEQ

ID NO: 1 (paragraph bridging pages 28-29). The specification also indicates that SEQ ID NO: 1 was operably linked to a GUS reporter gene and introduced into various maize tissues (Example 3, pages 27-34). Deletion of the zmGRP3 promoter, set forth in SEQ ID NOs: 2-7, were also made, operably linked to GUS and introduced into maize tissues. Table 1 on page 31 indicates that each of SEQ ID NOs: 1-7 directed GUS expression in root tissue, but not in any other tissue.

However, the specification does not describe any nucleic acid sequence that has more than 70% identity with any of SEQ ID NOs: 1-7, alleles of SEQ ID NOs: 1-7, sequence having more than 70% identity to the alleles, the complements of the alleles, and alleles having more than 70% identity to the complements of SEQ ID NOs: 1-7. The specification does not describe the sequences of SEQ ID NOs: 1-7 that can be changed without affecting its functional activity, other than the deletions of SEQ ID NO: 1 that produced SEQ ID NOs: 1-7. The structures of SEQ ID NOs: 1-7 do not provide any information concerning the structures of other nucleotide sequences that have root-specific transcriptional activity. See Fiers vs. Sugarno, 25 USPQ 2d (CAFC 1993) at 1606, which states that "[a]n adequate written description of a DNA requires more than a mere statement that it is part of the invention and reference to a potential method for isolating it; what is required is a description of the DNA itself". Given the breadth of the claims encompassing Also see Fiers vs. Sugarno, 25 USPQ 2d (CAFC 1993) at 1606, which states that "[a]n adequate written description of a DNA requires more than a mere statement that it is part of the invention and reference to a potential method for isolating it; what is required is a description of the DNA itself". Given the breadth of the claims encompassing any nucleic acid sequence that has more than 70% identity to one of SEQ ID NOs: 1-7 or one of their complements; any allele of one of SEQ ID NOs: 1-7 or their complements; alleles of any nucleic

acid sequence having more than 70% identity to one of SEQ ID NOs: 1-7; or alleles of any nucleic acid sequence having more than 70% identity to any complementary sequence of one of SEQ ID NOs: 1-7; and the lack of written description as discussed above, the specification fails to provide an adequate written description of the multitude of nucleic acid sequences encompassed by the claims.

6. Claims 30-32 and 34-67 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for SEQ ID NOs: 1-7, does not reasonably provide enablement for any nucleic acid sequence that differs from SEQ ID NOs: 1-7 and have root specific transcriptional activity. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

The claims are broadly drawn towards nucleic acid sequences for use in cloning and expressing a root specific nucleic acid sequence in a plant, selected from the group consisting of: SEQ ID NOs: 1-7; a complement of one of SEQ ID NOs: 1-7; any nucleic acid sequence that has more than 70% identity to one of SEQ ID NOs: 1-7 or one of their complements; any allele of one of SEQ ID NOs: 1-7 or their complements; alleles of any nucleic acid sequence having more than 70% identity to one of SEQ ID NOs: 1-7; or alleles of any nucleic acid sequence having more than 70% identity to any complementary sequence of one of SEQ ID NOs: 1-7; or wherein the nucleic acid sequence is from maize; a vector comprising said nucleic acid sequence; or any host cell comprising said vector; any cell culture comprising said host cell; any plant including said host cell; any composition of matter comprising said host cell; or a method of genetically

modifying any cell, comprising a step of transforming the cell with said nucleic acid operably linked to a gene of interest that is expressible in said cell.

As discussed above, the specification teaches the isolation of a genomic clone (SEQ ID NO: 14) from maize that encodes a glycine-rich protein, zmGRP3, which is expressed exclusively in roots. The promoter sequence of the gene is set forth in SEQ ID NO: 1. The specification also teaches that SEQ ID NO: 1, and 5' deletions thereof set forth in SEQ ID NOs: 2-7, directed transcription of an operably linked GUS coding sequence in transformed maize root tissue, but not in other transformed maize tissues.

However, the specification does not teach sequences that differ from SEQ ID NOs: 1-7, or that have more than 70% identity with any of SEQ ID NOs: 1-7, alleles of SEQ ID NOs: 1-7, sequences having more than 70% identity to the alleles, the complements of the alleles, and alleles having more than 70% identity to the complements of SEQ ID NOs: 1-7, and which retain the same root-specific transcriptional activity as SEQ ID NOs: 1-7. The specification indicates that "functional part" is a sequence that can deviate from the sequence of SEQ ID NOs: 1-6 by substitutions, deletions, or additions (page 6). No information is provided at all regarding the sequences of SEQ ID NOs: 1-7 that are essential for their root-specific promoter activities. In the absence of this guidance, it would require undue experimentation by one skilled in the art to determine how the sequences of SEQ ID NOs: 1-7 can be changed, other than the deletions that produced SEQ ID NOs: 2-7, without altering their promoter activities. Even minor changes in nucleotide sequence can the activity of a promoter. For example, Kim et al. (Plant Mol. Biol., 1994, Vol. 24, pages 105-117) show that for the nopaline synthase promoter, minor changes in

nucleotide sequence can alter activity (paragraph bridging pages 107 and 108; page 110, first column).

Further, regarding claims 47-57, 59, and 63, 64, 66, and 67: the claims encompass non-plant host cells. However, the specification does not teach how to use non-plant host cells, as SEQ ID NOs: 1-7 are from a plant gene, and as the sequences direct transcription specifically in plant root tissue. It is not obvious how one would use non-plant hosts, other than bacteria (as *Escherichia coli* are routinely used in the art to store nucleotide sequences of interest and *Agrobacterium* are used to transform plants). It is suggested that the cells of claims 47-57 and 59 be limited to bacterial or plant cells, and of claim 63 to plant root cells, as claim 63 indicates that the gene of interest is to be expressed.

Further regarding claims 44-46, 54-56: the claims encompass vectors which have only one T-DNA border sequence, or in which the gene of interest is adjacent to, rather than within, the T-DNA. Walden (Meth. Plant Biochem., 1997, Vol. 10b, pages 65-83) teaches that the presence of the border sequences is required to both define and delimit the plasmid sequences which are transferred to the plant genome (page 67). It is then not clear, and taught by the specification, how one skilled in the art can use the claimed vectors comprising T-DNA which have only one of the T-DNA border sequences. Further, also as asserted by Walden, it is the sequences within T-DNA that are replaced with genes of interest (page 67). As the T-DNA borders delimit the plasmid sequences that are transferred, it is not clear how the gene of interest can be transferred if it is adjacent to but not within the T-DNA borders. See Genentech, Inc. V. Novo Nordisk, A/S, 42 USPQ2d 1001, 1005 (Fed. Cir. 1997), which teaches that "the specification, not the knowledge of one skilled in the art" must supply the enabling aspects of the

invention. Further regarding claims 39 and 49: the claims indicate that the gene of interest can be one that confers male sterility. However, since such genes would need to be expressed in reproductive tissues, it is not clear how expressing such a gene only in root tissue using the promoters of the invention would confer male sterility to a transgenic plant. See Genentech, Inc. V. Novo Nordisk, A/S, *supra*. Given the breadth of the claims encompassing promoters comprising a functional part of one of SEQ ID NOs: 1-6, promoters that hybridize to one of SEQ ID NOs: 1-6, or promoters of any gene that encodes an amino acid sequence that exhibits a homology of at least 60% to SEQ ID NO: 8 and host cells of any species type, unpredictability of the art and lack of guidance of the specification as discussed above, undue experimentation would be required by one skilled in the art to make and use the claimed invention.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 30-32, 34-38, 40-48, and 50-66 are rejected under 35 U.S.C. 102(b) as being anticipated by Croy et al. (WO 91/13992).

The claims are broadly drawn towards nucleic acid sequences for use in cloning and expressing a root specific nucleic acid sequence in a plant, selected from the group consisting of: SEQ ID NOs: 1-7; a complement of one of SEQ ID NOs: 1-7; any nucleic acid sequence that has

more than 70% identity to one of SEQ ID NOs: 1-7 or one of their complements; any allele of one of SEQ ID NOs: 1-7 or their complements; alleles of any nucleic acid sequence having more than 70% identity to one of SEQ ID NOs: 1-7; or alleles of any nucleic acid sequence having more than 70% identity to any complementary sequence of one of SEQ ID NOs: 1-7; or wherein the nucleic acid sequence is from maize; a vector comprising said nucleic acid sequence; or any host cell comprising said vector; any cell culture comprising said host cell; any plant including said host cell; any composition of matter comprising said host cell; or a method of genetically modifying any cell, comprising a step of transforming the cell with said nucleic acid operably linked to a gene of interest that is expressible in said cell.

Croy et al. teach the production of transgenic plants with a vector comprising an expression cassette comprising the promoter of the rape extensin gene extA operably linked to a coding nucleic acid sequence. The extA gene, operably linked to the terminator sequence from the nopaline synthase (NOS) gene, was inserted into a plant expression vector and introduced into Agrobacterium, which were used to transform tobacco leaves. The transformed tissue was regenerated into transgenic plants. Using the extA coding sequence as a probe, Northern analyses were conducted of leaf and root RNA from the transgenic plants. Hybridization was detected with RNA from root tissue, but not leaf tissue. Seeds of the transformed plant were collected. An expression vector comprising an expression cassette comprising the extA promoter operably linked to the GUS coding sequence was also constructed. The vector was introduced into Agrobacterium, which was then cultured with rape hairy roots. The promoter was active in the rape root tissue. Transgenic roots were also regenerated into transgenic plants, and seeds of the plant were obtained (Examples 2 and 3, pages 14-20). The rape extA promoter

can be considered to be an allele of any one of SEQ ID NOs: 1-7, as the instant specification defines "alleles" as sequences comprising, for instance, nucleotide exchanges, substitutions, rearrangements, mutations, deletions, insertions, additions, or nucleotide modifications of sequences of SEQ ID NOs: 1-7. It is inherent that the extA promoter and the coding sequence operably linked to it were within the T-DNA of the transformation vector, as the successful generation of transgenic plants indicates that the T-DNA was successfully transferred to the host plant cells.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 30-32 and 33-67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Croy et al. (WO 91/13992) in combination with Fromm et al. (Biotechnology, 1990, Vol. 8, pages 833-839).

The claims are broadly drawn towards nucleic acid sequences for use in cloning and expressing a root specific nucleic acid sequence in a plant, selected from the group consisting of: SEQ ID NOs: 1-7; a complement of one of SEQ ID NOs: 1-7; any nucleic acid sequence that has more than 70% identity to one of SEQ ID NOs: 1-7 or one of their complements; any allele of one of SEQ ID NOs: 1-7 or their complements; alleles of any nucleic acid sequence having more

than 70% identity to one of SEQ ID NOs: 1-7; or alleles of any nucleic acid sequence having more than 70% identity to any complementary sequence of one of SEQ ID NOs: 1-7; or wherein the nucleic acid sequence is from maize; a vector comprising said nucleic acid sequence; or wherein said nucleic acid sequence is operably linked to any gene of interest; or wherein the gene of interest is for resistance to infection by a virus, a gene conferring herbicide or insecticide resistance or whose expression confers male sterility; or any host cell comprising said vector; any cell culture comprising said host cell; any plant including said host cell; any composition of matter comprising said host cell; or a method of genetically modifying any cell, comprising a step of transforming the cell with said nucleic acid operably linked to a gene of interest that is expressible in said cell; or wherein said method comprises microinjection or particle bombardment.

Croy et al. is discussed above.

Croy et al. do not teach a gene for resistance to infection by a virus, a gene conferring herbicide or insecticide resistance or whose expression confers male sterility, or particle bombardment.

Fromm et al. teach the production of transgenic maize plants, via particle bombardment, that express the genes that confer resistance to either chlorsulfuron or phosphinothricin (pages 833-838).

It would have been obvious and within the scope of one of ordinary skill in the art at the time the invention was made to use the promoter of Croy et al. to transgenically express any gene of interest, including the chlorsulfuron and phosphinothricin resistance genes used by Fromm et al. It also would have been obvious to introduce the promoter of Croy et al., operably linked to

any gene of interest, into any plant of interest, including the maize plants of Fromm et al., to achieve a desired end. One would have been motivated to express the chlorsulfuron or phosphinothricin resistance genes in agronomically important crops such as maize, as they confer the desirable property of herbicide resistance.

9. Claims 30-32 and 34-67 are rejected, and claims 33 and 68 are withdrawn from consideration.

Contact Information

Any inquiry concerning this or earlier communications from the examiner should be directed to Ashwin Mehta, whose telephone number is 703-306-4540. The examiner can normally be reached on Mondays-Thursdays and alternate Fridays from 8:00 A.M to 5:30 P.M. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amy Nelson, can be reached at 703-306-3218. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3014 and 703-872-9306 for regular communications and 703-872-9307 for After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.

ASHWIN D. MEHTA, PH.D
PATENT EXAMINER

October 21, 2002